

A Note on the Rove-beetle, *Staphlinus maculosis* Grav.*

By PHIL RAU, Kirkwood, Missouri.

I recently received a specimen of this rove-beetle from a resident of Grubville, Missouri, with the notation that it had bitten its way into the skin of a dog, causing a large wound. When the dog was first treated, the beetle was found in the fur near the injury and was therefore suspected of inflicting it. No doubt the beetle was found as stated, but it is quite likely that the injury was caused by some other agency. The beetle probably entered the wound for the purpose of feeding on maggots that are often found in such places.

This beetle is known to feed upon insects. Ralph Voris (Trans. Acad. Sci. St. Louis 28: 241, 1934) has observed them kill and feed upon insects, some as large as June beetles and moths. The prey, says he, is eventually reduced to a liquid, and the beetle swallows the juice. If the beetles can successfully handle large, hard-bodied insects such as moths and beetles, what a sinecure it must be for them to grapple with soft-bodied creatures such as maggots. It is, I believe, quite likely that the beetle was attracted to the store of maggots, rather than to the dog.

Sylvatic Plague: The Recovery of Fleas from the Burrowing Owl and Its Burrow in a Plague Area in Alberta

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Observations made in 1940, 1941 and 1942 in connection with the Alberta sylvatic plague survey showed that the Burrowing Owl, *Speotyto cunicularia*, was unusually abundant in the epizootic area at Hanna-Youngstown. As this bird lives in aban-

* Identified by A. E. Chapin.

doned ground squirrel and badger burrows and feeds on small rodents an attempt was made to study its probable relationship, as a host for rodent fleas, to the plague epizootic present amongst the Richardson ground squirrels, *Citellus richardsoni* Sabine, in that area.

It is well-known that the burrowing owl, although it usually kills its prey, will also feed on dead animals. In the epizootic area many of the ground squirrels die on the surface of the ground and are thus readily available. The burrowing owl invariably removes its victim to its burrow before it starts to feed, and it is this habit that accounts for the large number of rodent fleas in the burrow, and also for the presence of such fleas on the bird.

Jellison (1939) reported on the recovery of 109 live rodent fleas of six species from a burrowing owl nest in a plague area near Dillon, Montana. He also quotes from Rucker (1909) regarding the burrowing owl or booby owl of California as follows:

"There is reason to believe that the booby owl, which is a constant companion of the ground squirrel, occupying the same burrows with him, may play an important role in the dissemination of the epizootic. It is thought that this bird, flying from burrow to burrow, may carry infected fleas for long distances. If this be found true, the problem of the eradication of the epizootic will thereby be greatly complicated."

Wheeler, Douglas and Evans (1941) reported on the recovery of plague-infected fleas, *Echidnophaga gallinacea*, from a burrowing owl taken near a plague area in California.

Investigations

In 1940 three burrowing owl burrows were examined and a total of 47 fleas were recovered. These fleas were forwarded to Dr. R. J. Gibbons, Laboratory of Hygiene, Kamloops, B. C., for bacteriological examination. They were negative for *Pasteurella pestis*. No determination as to their species was made.

In 1941 a total of 43 burrowing owls were observed in the area, and 11 were shot and examined for ectoparasites. No

fleas were found. One burrow was examined and 37 fleas were recovered. These fleas were sent to the laboratory at Kamloops, but were not positive for plague. No determination as to flea species was made.

In 1942 a total of 32 burrowing owls were seen and 4 of these were shot. Two of these, on examination, yielded one flea each. One flea was determined as being *Oropsylla (Oropsylla) idahoensis* Baker, a species that is recorded by Eskey and Haas (1940) as being a plague vector. The other flea was tentatively determined as belonging to the species *Rectofrontia fraterna* Baker.

The following table summarizes the number of burrowing owls noted, the number shot, the fleas recovered from the shot birds, the number of burrows investigated and the number of fleas recovered from burrows for the period 1940 to 1942 inclusive.

Burrowing Owl Investigations

Year	Birds Noted	Birds Shot	Fleas Recovered	Burrows Examined	Fleas Recovered
1940	?	?	0	3	47
1941	43	11	0	0	0
1942	32	4	2	1	37
Totals	75	15	2	4	84

SUMMARY

The Burrowing Owl, *Speotyto cunicularia*, was unusually abundant in the epizootic area at Hanna-Youngstown during 1940, 1941 and 1942. A total of 84 fleas were recovered from four burrows. Two of 11 birds shot harboured one flea each. One of these fleas was determined as being *Oropsylla (Oropsylla) idahoensis* Baker, a known plague vector.

REFERENCES

- ESKEY, C. R. and HAAS, V. H. Plague in the Western Part of the United States. U. S. Pub. Hlth. Service, Bull. (254), 1940.
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WHEELER, C. M., DOUGLAS, J. R. and EVANS, F. C. The Role of the Burrowing Owl and the Sticktight Flea in the Spread of Plague. *Science*, 94 (2450): 560-561, 1941.

OBITUARY

Sir Edward Bagnall Poulton died on November 21, 1943 at the age of 87 years. He was well-known throughout the world as zoologist and entomologist. Until his retirement in 1933 he was Hope professor of Zoology at the University of Oxford. Among the many honors accorded him, he was a Corresponding Member of the American Entomological Society.

NOTES AND NEWS IN ENTOMOLOGY

The first issue of the NEWS in 1890 started with the sentence: "It has for some time been apparent to Entomologists in this country that there was unoccupied room for a journal of Entomology devoted less to the dry details of descriptive and classificatory work and more to the news and gossip which is always of interest to entomological workers." This attitude has been reaffirmed in letters and editorials published in 1921 and 1925. But the labor entailed in such a project is too great for the editorial staff alone. However, the editors propose to reinstate this heading and review from time to time some of the interesting developments and happenings in Entomology throughout the world—abbreviated reviews of fields, of single papers, of trends, of events, notes, news, comments. We can prepare some of these and will start the ball rolling again, but for full advantage to all, we solicit items of general interest. Remember, such items always have received priority over technical papers, and still do.

Insects are so diversified that it has been said, more or less seriously, that the hardest thing to find in entomology is a generalization without exceptions. Our knowledge of the insect cuticle now falls right in line with this complaint. For years